

**ABSTRACT**

A system and method for controlling the speed of a turbine  
5 engine, the turbine engine being operative to provide  
power to a primary load. When a decrease in the power  
requirement of the primary load is detected, at least a  
portion of the power generated by the turbine engine is  
redirected to a secondary load, thereby maintaining the  
10 speed of the turbine engine below a rated maximum speed.  
In the example of a turbine-powered train in which the  
turbine engine provides power to electric traction motors  
driving the wheels of the train, when a wheel spin is  
detected, at least a portion of the power generated by the  
15 turbine engine is diverted from the respective electric  
traction motor to rheostats for conversion to heat.